

Claim amendments:

1. (currently amended) A molecular adjuvant for enhancing an immune response to an immunogen comprising:
a ~~targeting ligand~~C5a response selective agonist having binding affinity for a ~~receptor present on~~C5a receptor of an antigen presenting cell, ~~said receptor being of a type that is internalized upon binding of a ligand and that transmits a signal in the antigen presenting cell that stimulates antigen processing and presentation by the antigen presenting cell,~~ said ~~targeting ligand~~selective agonist being covalently linked to said immunogen, whereby binding of said molecular adjuvant to said antigen presenting cell C5a receptor activates said antigen presenting cell, effecting delivery of said immunogen to an antigen presenting pathway of said antigen presenting cell.
2. (canceled)
3. (canceled)
4. (previously amended) A molecular adjuvant as claimed in claim 1, wherein said selective agonist is selected from the group consisting of C5a and a peptide agonist analog of C5a comprising the C-terminal ten residues of C5a.
5. (previously amended) A molecular adjuvant as claimed in claim 4, wherein said selective agonist is a peptide comprising the sequence YSFKPMPLaR, which is Sequence I.D. No. 1.
6. (previously amended) A molecular adjuvant as claimed in claim 1, comprising a selective agonist and an immunogen

having the sequence YKQGGFLGLYSFKPMPLaR, which is Sequence I.D. No. 2.

7. (previously amended) A molecular adjuvant as claimed in claim 1, wherein said selective agonist and said immunogen are linked by a spacer moiety.

8. (canceled)

9. (canceled)

10. (original) A molecular adjuvant as claimed in claim 1, wherein said immunogen comprises at least one substance selected from the group consisting of peptides, glycopeptides, phosphopeptides, lipopeptides, proteins, glycoproteins, phosphoproteins, lipoproteins, carbohydrates, nucleic acids and lipids.

11. (original) A molecular adjuvant as claimed in claim 10, wherein said immunogen comprises a peptide.

12. (original) A molecular adjuvant as claimed in claim 10, wherein said peptide comprises an epitope of human mucin-1.

13. (original) A molecular adjuvant as claimed in claim 10, wherein said immunogen comprises a protein.

14. (original) A molecular adjuvant as claimed in claim 13, wherein said protein comprises serum amyloid A (SAA).

15. (original) A molecular adjuvant as claimed in claim 14 having the formula SAA-K-Ahx-YSFKPMPLaR, which is SAA-conjugated SEQ ID NO: 8.

16. (original) A molecular adjuvant as claimed in claim 1, wherein said immunogen comprises a tumor-specific antigen.

17. (original) A composition for enhancing an immune response to an immunogen in a subject in which said enhanced immune response is desired, said composition comprising the molecular adjuvant of claim 1 in a biologically compatible medium.

18. (canceled)

19. (canceled)

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

24. (canceled)

25. (previously amended) Antibodies to a selected immunogen, wherein the antibodies are produced by a methods comprising the steps of:

- a) immunizing an animal with an immunogenically effective amount of the molecular adjuvant of claim 1, wherein the molecular adjuvant comprises the selected immunogen; and
- b) recovering the antibodies from serum of the animal.

26. (previously added) The method of claim 1 wherein the immunogen is an antigenic substance selected from the group consisting of peptides, proteins, glycopeptides, glycoproteins, phosphopeptides, phosphoproteins, lipopeptides, lipoproteins, carbohydrates, nucleic acids, and lipids.

It is believed that the newly submitted amendment to claim 1 fully complies with the requirements set forth in 37 C.F.R. §1.121. Entry of this amendment is respectfully requested.

Respectfully submitted,

DANN, DORFMAN, HERRELL AND SKILLMAN
A Professional Corporation

By 

Kathleen D. Rigaut, Ph.D., J.D.

PTO Registration No. 43,047

Telephone: (215) 563-4100

Facsimile: (215) 563-4044